Google Japan Cybersecurity Research Award

We are looking to fund research into security and cryptography. The 2024 Google Japan Cybersecurity Research Award is intended to support exceptional Cybersecurity research in Japan. We invite you to submit a short proposal (3-5 pages). You may direct questions about the Google Japan Cyber Security Research Award <u>eastasia-ur@google.com</u>.

Award Information:

Google plans to make multiple awards of USD \$30,000 to support research projects in security and cryptography in Japan. The initial grant will be for 1 year. The award is open to professors (assistant, associate, etc) at a university or PhD degree-granting research institution in Japan.

Guidance on Proposals:

Priority research areas include, but are not limited to:

Security Research

- **AI-Powered Security:** Malware analysis & detection, pushing the boundary of AI cybersecurity abilities in understanding and remediating vulnerabilities, being able to offer competent advice about cybersecurity topics, and aid experts in threat understanding and mitigation to scale their impact. Examples include: threat summarization and prioritization, vulnerability detection and patching, and automated risk assessment.
- Hardware Security: Side channel discovery & mitigation, applications of secure-by-default firmware (e.g, <u>Wasefire</u>), FHE acceleration, PQC acceleration, secure transfer of secrets across devices for device replacement
- Novel AI Threats & Mitigation: LLM adversarial attacks, multimodal attacks, attacks against code understanding

Cryptography

- Fully Homomorphic Encryption
- **Privacy-Preserving Technologies:** Secure multiparty computation, private information retrieval, differential privacy, anonymous tokens
- Zero-Knowledge Proofs
- Post-Quantum Cryptography

Applicants are asked to submit a 3-5 page proposal outlining research goals that could be accomplished in time commitment of roughly one year. The award will be given as an unrestricted gift intended to support Ph.D. students or equivalent support (i.e., post-docs).

Awardees will also work with their Google Sponsor, a Cybersecurity researcher assigned to each project based on relative field expertise for the purpose of offering advice and guidance. The Google Sponsor will serve as the main point of contact at Google, and will participate in regular, quarterly check-ins instigated by the PI and project team.

Review and Selection Process

Proposals will be reviewed and selected by a committee of Google researchers and are assessed on merit, innovation, originality, and an overall fit with our eligibility criteria. Applications may be submitted at any time before the deadline: **July 31, 2024, 11:59 PM JST(UTC+9)**.

We believe strongly in open access and in supporting projects whose output will be made available to the public and to other researchers. For this reason, we ask Principal Investigators (professors submitting proposals) to include a brief statement about what they intend to do with the output of their work, and we strongly prefer projects that intend to publish data sets, publish code via open source licenses, or otherwise contribute to the academic community.

How to Apply

Apply by filling out <u>this application form</u> and submit your proposal by **July 31, 2024, 11:59 PM JST (UTC+9)**

Proposal in PDF format, must include these items:

- Proposal Title
- Principal Investigator (PI) full name, contact information
- Co-PIs full names, contact information
- Affiliation (university, school, college and/or department)
- Research objectives and expected results with timeline (i.e. Quarter 1, Quarter 2,...)
- Statement of prior work, list of relevant publications
- Benefit to the research community

Remember to be concise but clear. As guidance, we'd prefer the body of the proposal to be 5 pages maximum.

To submit your proposal, please upload via the application form provided. Please note that sign-in through a Google account is required for uploading files through Google forms. If you have any questions, please reach out to <u>eastasia-ur@google.com</u>. We expect to make final decisions no later than mid-September.